

## **REMARKS**

The present application includes claims 1-18 and 20. The Examiner has rejected claims 1-18 and 20. No claims have been amended by this response. Based in part on the remarks below, the Applicant respectfully submits that the pending claims define allowable subject matter, and the Examiner's rejections have been overcome.

Claims 1-18 and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hawkins et al. (U.S. Patent No. 6,247,000) in view of Daughtery (U.S. Patent Pub. No. 2001/0056392) and further in view of Mosler et al. (U.S. Patent No. 6,304,858).

## **History**

Claims 1-18 and 20 remain pending in the application. Previously, the Examiner had allowed claims 1-18 and 20. Claim 19 had been rejected, so claim 19 was cancelled by the Applicant to proceed with allowance. The Hawkins, Daughtery and Mosler references had been cited to and considered by the Examiner in obtaining allowance of claims 1-18 and 20. The Hawkins and Mosler references were disclosed to the Examiner in an IDS filed by the Applicant's attorneys on January 9, 2003. The parent patent of the Daughtery application was previously relied upon by the in an office action mailed on March 18, 2002, which was overcome by the Applicant. Then, in 2003, the application was selected for a second tier review. The above rejection of claims 1-18 and 20 was issued on July 8, 2005.

The Applicant now turns to the rejection of claim 1-18 and 20 under 35 U.S.C. 103(a) as being unpatentable over Hawkins in view of Daughtery and further in view of Mosler.

### **Hawkins**

Hawkins relates to a message relay and interfacing system between clearing agents operating in disparate locations (col. 1, lines 34-39, col. 9, lines 25-67, col. 16-18). That is, Hawkins facilitates message passing between brokers and agents to buy or sell securities, thus enabling brokers in different countries to execute trades. However, the trade itself is not executed by the system of Hawkins.

Hawkins matches order routing of securities and other instruments after execution of the transaction. (Abstract). The system of Hawkins relays messages between clearing agents operating in disparate locations (col. 1, lines 34-39; col. 9, lines 25-67; cols. 16-18). A trade itself is not executed by Hawkins. Hawkins enables easier communication but does not perform calculations; it just passes messages between brokers (Fig. 22 and 27B-D).

Hawkins relays messages between brokers. Hawkins enables easier communication but does not perform calculations. Rather, Hawkins simply passes along instructions and messages from one broker to another (Figure 22). Settlement and other information is entered and forwarded to another party (Figures 27B-D). As mentioned in column 9, for example, of Hawkins, the system establishes a connection to allow the brokers to communicate. Hawkins does not teach or suggest a flexible or variable tick value. That is, Hawkins does not update a tick value for a futures contract.

Additionally, as the Examiner states, Hawkins does not teach a convex futures contract, nor does Hawkins suggest the use of a convex futures contract. Additionally, Hawkins does not teach or suggest a tick value, a flexible or variable tick value, or an update of a tick value for a convex futures contract. Furthermore, as the Examiner notes, Hawkins does not teach applying an actual tick value to a difference between the trade price data and the settlement price and triggering a computer-assisted transfer of the amount of money. Hawkins has no base tick value for a convex futures contract, no expiration time for the convex futures contract, no computing of a discount factor from settlement price, and no determination of actual tick value from discount factor and base tick value. These limitations are recited in independent claims 1, 16 and 20. Thus, innovative aspects of the present invention are simply missing from Hawkins.

#### **Daugherty**

Daugherty calculates a call or put option premium. (Abstract; [0001]; [0031]; [0073]). According to Daugherty, an option premium exists that would cause many dealing in margin positions and expiring options to find great benefits in transacting expirationless options. ([0032]). Daugherty stresses that its method is an unscientific method of dealing with expirationless options. ([0032]). These are not convex futures contracts.

Daugherty calculates a call or put option premium (Abstract; [0002]; [0031]; [0073]). Daugherty uses a standard expiring option premium algorithm to discount time to price a purchased and sold option ([0036]; [0076]). A user enters a current asset price, a current risk-free interest rate, historic price volatility of the asset, an exercise price for the asset, an option type (call or put), and a margin requirement for the asset (pp. 7-8). Dollar amount price movement is stored in a tick variable ([0218]). The system uses a

standard algorithm selected by the user to process this information to issue a buy or sell hard copy for the user to take to an exchange ([0134]).

The system of Daughtery discounts the effects of time. ([0033-34]). Daughtery uses a standard expiring option premium algorithm to discount time to price a purchased and sold option. ([0036]; [0076]). The tick variable of Daughtery houses the standard dollar price movement based on time until expiration of the option. ([0128]; [0130]). The tick value of Daughtery is not a computed, changing value for the transaction. The tick value of Daughtery does not include a base tick value and a computed actual tick value, as recited in the pending claims of the present application.

Daughtery mentions use with forward or futures contracts [0184-85] but not the novel convex futures contracts developed by the Applicant. Additionally, in Daughtery there is no computing discount factor from settlement price and no determining an actual tick value from discount factor and base tick value. The glossary of Daughtery provides no information to substantiate a discount factor calculation. Thus, Daughtery does not teach or suggest all of the limitations of claims 1-18 and 20.

As the Examiner states, the above cited references (Hawkins and Daughtery) do not teach a method of computing a discount factor from the settlement price and determining an actual tick value by applying the discount factor to the base tick value. Additionally, as shown above and illustrated by the references themselves, the references do not suggest this and other limitations of the claimed invention.

### **Mosler**

Further adding Mosler to the mix does not cure the deficiencies of the hypothetical combination as it relates to the claimed invention. Mosler relates to trading

a standardized contract (Abstract; col. 4, lines 25-45; col. 14, lines 22-32). Mosler discusses an interest rate swap, where two parties agree to make payments to each other to insulate a party from changing interest rates (Abstract, col. 1, lines 24-42, col. 7, lines 9-62). In Mosler, a net present value is an interest rate or notional cash flow (col. 7, lines 9-22). The net present value is used as a model price and not as a factor, such as a discount factor, used in a calculation of an actual tick value and amount of money to clear the convex futures contract (col. 7, lines 23-50). The model price becomes the settlement price (col. 7, lines 23-50).

Mosler envisions trading a standardized contract. (Abstract; col. 4, lines 25-45; col. 14, lines 22-32). Mosler discusses an interest rate swap, where two parties agree to make payments to each other to insulate a party from changing interest rates. (Abstract; col. 1, lines 24-42; col. 7, lines 9-2). In Mosler, a net present value is an interest rate or notional cash flow. (col. 7, lines 9-22). The net present value is used as a model price. (col. 7, lines 23-50). The model price becomes the settlement price. (col. 7, lines 23-50). A discount value is not determined from the settlement price in Mosler. Additionally, no tick value, let alone a base and an actual tick value, is found in Mosler. Furthermore, the model pricing of Mosler (col. 7, lines 35-50, col. 24, lines 25-52) does not teach or suggest determining the amount of money to be transferred.

None of the references teach a variable tick value, wherein the variable tick value changes based on a daily closing value for the futures contract. Additionally, neither Hawkins, Daughtery, nor Mosler discloses the method of transferring funds based on the settlement amount to trade the futures contract. Column 12, lines 46 – column 14, line 8

of Hawkins mentions an exchange of messages between broker and agent via a network and display but does not mention transferring funds based on the settlement amount.

Assuming, for the sake of argument, that one of ordinary skill in the art would look at Hawkins and combine it with Daughtery and then combine it with Mosler, the hypothetical combination of Hawkins with Daughtery and with Mosler does not teach or suggest the input information received in claims 1-18 and 20 of the present application. The combination does not teach or suggest computing a discount factor from the settlement price, determining an actual tick value by applying the discount factor to the base tick value, and specifying an amount of money a clearing entity must transfer between a buyer and a seller for clearing a convex futures contract by applying the actual tick value to a difference between trade price data and the settlement price. Each of these elements is a limitation recited in claims 1-18 and 20. These limitations are simply not present in the combination of references. The combination does not teach or suggest the computer-assisted transfer and documentation for convex futures contract clearing as recited in claims 1-18 and 20.

Additionally, obviousness under section 103 requires a suggestion to combine and the presence of all claimed elements in the combination and not just a general goal of greater capabilities. Furthermore, a person of ordinary skill in the art looking at Hawkins and Daughtery and Mosler either separately or at the same time would not have the required appreciation of the claimed invention necessary by statute and Federal Circuit case law.

Any theoretical combination of Hawkins, Daughtery and Mosler would also not teach the limitations of dependent claims 2-15 and 17. The additional limitations recited in dependent claims 2-15 and 17, such as limitations relating to generation and display of a cumulative price quote or price for a floor option, communicating data to a second computer system, publication, conveying information, etc., are not taught or suggested by the above cited art.

The Applicant respectfully submits that an examination of these references does not teach or suggest the limitations of the claimed invention to one of ordinary skill in the art at the time of invention. Even a theoretical combination of these prior art patents does not provide an appreciation of all of the elements of the claimed invention, as required by statute and case law. Therefore, the Applicant respectfully requests allowance of the pending claims 1-18 and 20.

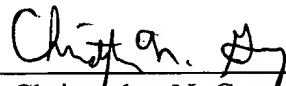
**CONCLUSION**

For the foregoing reasons, the Applicant respectfully submits that the pending claims define allowable subject matter. Should anything remain in order to place the present application in condition for allowance, the Examiner is kindly invited to contact the undersigned at the telephone number listed below.

The Examiner is authorized to charge any additional fees or credit overpayment to the Deposit Account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

Respectfully submitted,

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